Module 4: Discussion -- Confidence Intervals

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 **Discussion***- Confidence Intervals*

Discuss how confidence intervals can help in making decisions. Provide some examples different from those in the textbook.

**Response:**

Confidence intervals aid in making decisions by increasing the likelihood that the data provided is accurate to the specific population. When it is unknown whether the interval estimate is exactly accurate, confidence intervals ensure that one is in the right ball park. Based on this information decisions can be categorized into different groups based on the level of confidence.

An example of confidence intervals within the insurance industry are their use in making assumptions as to the likelihood of a certain type of event over a period of time. For example, using available data one could surmise with a certain level of confidence that a certain percentage of claims will be litigated. This is helpful in reserving and expense planning.

Another example involves in state assessments. In reviewing the scores of students within a certain grade, confidence intervals can be used to determine the level of confidence that a student receiving a certain grade on the test, will be successful in the following grade.

Lastly, confidence intervals can be used in health assessments. Using the results of diagnostic test related to a specific condition, a doctor could asses the likelihood of having the current condition based on confidence intervals.